



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Confirmation No.: 2638

Juha T. HARJU et al.

Art Unit: 2618

Application No.: 10/663,908

Examiner: Wendell, Andrew

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Attorney Dkt. No.: 59864.01093

For: NETWORK SURVEY IN RADIO TELECOMMUNICATIONS NETWORK

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

March 28, 2007

Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program guidelines set forth in the July 12, 2005 Official Gazette Notice, Applicants hereby submit this Pre-Appeal Brief Request for Review of the final rejections of claims 1-18 in the above identified application. Claims 1-18 were finally rejected in the Office Action dated December 28, 2006. Applicants filed a Response to the Final Office Action on February 28, 2007, and the Office issued an Advisory Action dated March 15, 2007 maintaining the final rejections of claims 1-18. A telephone call was placed by Applicants' representative to the Examiner to note that the Advisory Action erroneously addressed a different set of claims from the pending claims and a different set of references from the references submitted in the previous Office Actions. Although the Examiner acknowledged this error, the Examiner indicated that a new Advisory Action would be issued, addressing the pending claims. Therefore, Applicant hereby appeals these rejections and submits this Pre-Appeal Brief Request for Review. A Notice of Appeal is filed timely concurrently herewith. This Pre-Appeal Brief Request for Review is being timely filed. As will be discussed below, numerous clear errors exist in the final rejections that require withdrawal thereof.

Claims 1-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Application Publication No. 2002/0098839 to Ogino (hereinafter Ogino) in view of U.S. Patent

No. 6,201,802 to Dean (hereinafter Dean). As outlined below, Ogino and Dean fail to disclose or suggest the elements of claims 1-18. The failure of Ogino and Dean to disclose each and every element of the present claims constitutes clear error.

Ogino discloses a system for more accurately determining a location of a mobile station in a mobile communications network. The base stations in the network synchronize their timing using GPS. The mobile station then determines the delay between the signals of the base stations to calculate its position. See at least paragraphs 0027-0035 of Ogino. Ogino also discloses a system for determining a transmission time offset generated by a base station by placing offset determination devices at multiple locations. The multiple locations for the offset determination devices are required to provide redundancy to ensure that the first received signal has not been delayed during transmission. See at least paragraphs 0042 and 0045 of Ogino.

Dean discloses a system for determining the delay caused within a base station for transmission. A timing analyzer receives signals from the base station and determines a timing offset. See at least the Abstract and paragraphs 0060-0067 of Dean.

Applicant submits that the rejection of claims 1-18 under 35 U.S.C. 103(a) based on the teachings of Ogino and Dean is clearly erroneous. Applicants submit that the combination of Ogino and Dean fails to teach or suggest the combination of elements recited in the presently pending claims. Each of claims 1 and 12, in part, recites moving the network survey device to a second location and, with the network survey device at the second location, receiving signals from the first base station at the second location by the means of a network survey device, thereby measuring synchronization of said first base station relative to the reference time-frame. Claims 9 and 11 recite elements of a network survey device. As acknowledged in the Office Action, Ogino does not disclose devices that can be moved to multiple locations to capture timing difference information. Consequently, Ogino does not teach or suggest a method or device to enable the creation of a network survey as recited in claims 1, 9, 11 and 12.

Dean does not cure the deficiencies of Ogino, as alleged by the Office Action. Specifically, Dean does not teach or suggest generating a network survey of timing difference from various locations. Dean is directed to solving the problem of delays caused within the base station, i.e., timing offsets, rather than timing differences caused by the topography of the network.

Furthermore, Applicants submit that Ogino and Dean address the problem of correcting for timing offsets within base stations. Neither Ogino nor Dean raises the issue of calculating a network survey which can be used for calibrating the network. Furthermore, neither Ogino nor Dean teach or suggest a device which records timing differences at two or more locations for use in a network survey. Applicants also submit that one skilled in the art would not be motivated to modify the teachings of Ogino and Dean to yield the elements recited in the presently pending claims.

In the “Response to Arguments” section, the Office Action indicated that it is not clear how the argument that Dean does not teach or suggest generating a network survey of timing difference from various locations, as made in the previous Response, relate to the claim limitations. Each of claims 1, 9, 11 and 12 recites locating a network survey device to a first location and measuring synchronization of a first base station relative to a reference time-frame determined from a location system and moving the network survey device to a second location and measuring synchronization of a first base station relative to a reference time-frame. Therefore, Applicants submit that the pending claims recite the feature of generating a network survey of timing difference from various locations.

The Office Action alleged that Dean and Ogino teach timing difference from different locations. As noted in the Office Action, Dean discloses gathering time offsets from base stations. Ogino teaches surveying timing differences at different locations. However, neither Dean nor Ogino teach or suggest generating a network survey of timing difference from various locations by locating the network survey device to a first location and measuring synchronization of a first base station relative to a reference time-frame determined from a location system and moving the network survey device to a second location and measuring synchronization of a first base station relative to a reference time-frame, as recited in the pending claims. The timing offsets gathered in Dean is not equivalent to a network survey of timing difference, as recited in the pending claims. Furthermore, surveying timing differences at different locations, as disclosed in Ogino, is not equivalent to generating a network survey of timing difference from various locations, as recited in the pending claims.

The Office Action also alleged that there is no mention of recording in the pending claims. Applicants submit that the pending claims recite performing a network survey by

measuring at synchronization of the first base station at the first and second locations. Therefore, Applicants submit that it is clear that the measurements would have to be recorded in order to perform the network survey.

Claims 1 and 12 also recite receiving signals from a location system external to a network for determining a location of a network survey device. The Office Action alleged that Dean teaches a network survey device receiving signals "... for determining its location". In Dean, the proposed processing element for measuring/analyzing the timing of the base station includes a GPS receiver. Applicants note that the GPS receiver can be used for two purposes, for positioning (navigate mode) and for providing a timing reference (timing mode). The sole purpose of the GPS receiver in Dean, however, is to derive the absolute timing required to perform the measurement. In Dean, the navigation mode is only needed initially, since it is only possible to derive the absolute time from the GPS system after the GPS receiver is locked to enough satellites. There is no evidence, in Dean, that the GPS receiver is needed to determine the position of the device for performing the proposed measurement.

This becomes even clearer since in the first detailed embodiment of Dean, only one measurement as close as possible to the base station antenna is performed. Therefore, in Dean, the position of the measurement device can be assumed to be the same as the base station position, especially when also taking into account the inaccuracy of GPS for determining the position. In Col. 6, lines 36-43 of Dean, it is even indicated indirectly that the delay introduced by the wireless link can be neglected (in the range of 100ns), if one compares it to the specified delay limits (3us) mentioned in Col. 6, lines 19-24, which are the limits of the present measurement in the preferred embodiment. The GPS receiver is needed in this embodiment of Dean solely as timing reference to perform the timing offset (delay) measurement.

In the second embodiment of Dean, starting at Col. 8, line 57, it is even stated that the GPS receiver is not needed at all (in order to reduce the costs of the measurement device = timing analyzer), hence no positioning data is needed for the measurement process. Therefore, Applicants submit that Dean also clearly fails to teach or suggest the feature determining a location of a network survey device, as recited in claims 1 and 12. Based on the arguments presented above, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) is in clear error and should be withdrawn because neither Ogino nor Dean, whether taken singly or

combined, teaches or suggests each feature of claims 1, 9, 11 and 12 and hence, dependent claims 2-8, 10 and 13-18 thereon.

For all of the above noted reasons, it is strongly submitted that certain clear differences exist between the present invention as claimed in claims 1-18 and the prior art relied upon by the Examiner. It is further submitted that these differences are more than sufficient that the present invention would not have been anticipated or obvious to a person having ordinary skill in the art at the time the invention was made. This final rejection being in clear error, therefore, it is respectfully requested that the Examiner's decision be reversed in this case regarding the rejections of claims 1-18, and indicate the allowability of all of pending claims 1-18.

Reconsideration and withdrawal of the rejections, in view of the clear errors in the Office Action, is respectfully requested. In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

  
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Arlene P. Neal  
Registration No. 43,828

**Customer No. 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802

APN: jkm

Enclosures: PTO/SB/33 Form  
Notice of Appeal  
Check No. 16109